Tennessee Pollution Prevention Partnership Success Story

ABB, Inc.
1128 S. Cavalier Drive
Alamo, TN 38001
731-696-5561
www.abb.com/electricalcomponents

1-800-734-3619
www.tdec.net/ea/tp3

Eliminating Aeroglaze for Clean Air

The Member

ABB, Inc. Power Products Division, Alamo Tennessee, is housed in a 228,000 square foot building that was expanded in 1981. The plant is located on 78.16 acres located in Crockett County.

The Alamo facility manufactures and markets **Power Transformers** components and **Distribution** components. The Power Transformer components include condenser bushings, bulk bushings, tap changers, potential devices, alarm systems, and control cabinets. The **Distribution** components include LBOR Rotary Switches, DOIII Fuse Holders, ProLink Fuses, Expulsion Fuses, HV & LV bushings, TC/DV Switches, Isolation Links and CLT Fuse products.

Products made in house or purchased from outside suppliers are inspected and assembled according to the Alamo quality plan. Products from the Alamo facility are delivered to electric utilities or to transformer manufacturing plants located throughout the world.

External interested parties may include facility neighbors, news media, City of Alamo, the Tennessee Department of Environment & Conservation and the United States Environmental Protection Agency. These agencies permit and monitor the facility for compliance with state, federal, and local environmental regulations governing air, water, and land pollution.

This facility is periodically reviewed by external and internal auditors, and corporate and government inspectors to check compliance with environmental regulations and ISO 14001 standards. This facility is ISO 14001 certified by Det Norske Veritas Certification, Inc.

The Story

One of our products is a protective link for distribution transformers. Part of this device consists of a tube coated with Aeroglaze, which is a flammable, paint-type material. The fuse wire in the protective link heats and pushes oil out of the tube, resulting in an electrical discharge. The Aeroglaze was primarily used as a dielectric shield to protect the device. After coating, the device was baked in an oven to cure the Aeroglaze. Aeroglaze is rated as a health hazard 2 chemical because it contains methyl ethyl ketone, methylene chloride, carbon black, and toluene diisocyanate. The fumes were expelled by an industrial venting system in the assembly area. The Aeroglaze also thickens after opening, making it unusable. Once deemed waste, the residue requires disposal under hazardous waste disposal methods.

The Success

The ABB engineer for the protective link redesigned the tube with a vent hole to allow the oil to flow through freely, eliminating the radio noise, and eliminating the need for the Aeroglaze dielectric barrier. This project was initiated on 11/7/2005 and complete on 9/30/06.

The Pollution Prevented

Eliminating the Aeroglaze coating and baking process removes approximately 164 pounds per year of VOCs from the environment.

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